NMCI Contract N00024-00-D-6000
Awarded 6 October 2000

Attachment 2B
Transition Service Level Agreements

SERVICE NAME: EMAIL SERVICES	SLA: 203

Service Description: Vendor provided services for sending, storing, processing, and receiving email and multimedia e-mail attachments.

Applicable Service Delivery Points: Fixed and Portable (Basic, High End, Mission Critical) Workstation, Embarkable Workstation, Embarkable Portable (Government and Contractor provided), Hybrid Seat.

Performance Measure: Email Services Performance of Email Transfer	Increment 1 SLAPC: 203.3

Performance Measure Description: Average time the vendor provided e-mail system keeps the message in their system (a) before depositing in the user's mailbox (on server) for incoming mail and (b) before delivering to the Internet or other NMCI domain for outgoing mail. Excludes the time the E-mail is queued into the user's local out-going message box (if that capability exists) before transmitting to the mail server.

Who: Vendor	Frequency: Monthly
Where: Operations Center	**How Measured:** Vendor includes average daily 'time-in-spool' data in monthly reports to the Government. A third party or the Government may audit the data.

SLA Target	LOS (1)	<= 5 minutes
	LOS (2)	<= 5 minutes
	LOS (3)	<= 5 minutes

SERVICE NAME: DIRECTORY SERVICES	SLA: 204

Service Description: Description: Vendor maintained global information services delivering distributed computing applications such as file, directory, security, messaging, Web, white pages, and object services, across the NMCI. Information services include storing, updating, and publishing (online and hard copy) directory information from multiple systems and formats including e-mail addresses, commercial and DSN telephone numbers, certificates, addresses, network resource policies, applications, network devices, and routing information as well as other NMCI determined data/resources. The global directory is envisioned to maintain information on millions of users and resources.

Applicable Service Delivery Points: Fixed and Portable (Basic, High End, Mission Critical) Workstation, Embarkable Workstation, Embarkable Portable (Government and Contractor provided), Hybrid Seat, Voice Seat, Video Seat.

Performance Measure: Directory Services Availability	Increment 1 SLAPC: 204.1

Performance Measure Description: NMCI global information services are accessible at the service delivery points. Directory availability is defined for the directory services as the portion of time that vendor provided directory service is 'up' for making available directory information to the end user. It is measured in terms of percentage of available time in a month. Formula is: (# of hours in month -Directory outage time in hours) / # of hours in month. The outage time includes all unscheduled Directory service outages. Exception is scheduled pre-agreed outage. The computation addresses only availability of the Directory and excludes problems associated with network service.

Who: Vendor	**Frequency:** Measured continuously, summarized daily, reported monthly.	
Where: At the Enterprise Directory server	**How Measured:** Measured at directory server for the NMCI Enterprise. Excludes any failures relating to network and non-directory related hardware/ components. Vendor monitors directory service availability and reports % availability on a monthly basis. The Government or a designated third party will audit availability data.	
SLA Target	LOS (1)	0.995
	LOS (2)	0.995
	LOS (3)	0.997

Performance Measure: Directory Services Responsiveness – Network Connected	Increment 1 SLAPC: 204.2

Performance Measure Description: Time it takes to search on-line directory information for LAN attached end-user within NMCI domain. Measured using automated network scripts placed on end-user workstations at agreed upon sites.

Who: Vendor	**Frequency:** Aggregated hourly, summarized daily, reported monthly by sample site.
Where: NMCI wide	**How Measured:** Sample testing of NMCI directory responsiveness. Run script three times daily (approx 0900, 1500, 2100 local time, M-F) for one hour each, with measurement taken every 5 minutes and averaged during the hour.

SLA Target	LOS (1)	<=2 sec
	LOS (2)	<=2 sec
	LOS (3)	<=2 sec

SERVICE NAME: WEB ACCESS SERVICES	SLA: 206

Service Description: Vendor provided ability and features that allow end user to access in-house and external web content.

Applicable Service Delivery Points: Fixed and Portable (Basic, High End, Mission Critical) Workstation, Embarkable Workstation, Embarkable Portable (Government and Contractor provided), Hybrid Seat.

Performance Measure: Web Access Services Availability	Increment 1 SLAPC: 206.1

Performance Measure Description: Web server availability is defined as the portion of time that vendor provided web servers are available or 'up' for customer access. It is measured in terms of percentage of available time in a month. Formula is:. Formula is: (# of hours in month times the number of Web clusters in the server farm - Web outage time in hours) / number of hours in month times the number of Web clusters in the server farm. The outage time includes all unscheduled web server outages. The measurement is an aggregate and average availability by server farm of all Contractor controlled and managed web servers as reported at the Help Desk. The computation addresses only availability of the Web server and excludes problems associated with network service.

Who: Vendor	**Frequency:** Measured continuously, summarized daily, reported monthly by server farm.
Where: At the web server cluster	**How Measured:** Measured at the web server. Vendor monitors web server availability and reports % availability by server farm. The Government or a designated third party will audit availability data.

SLA Target	LOS (1)	0.995
	LOS (2)	0.995
	LOS (3)	0.997

Performance Measure: Web Access Services Performance	Increment 1 SLAPC: 206.2

Performance Measure Description: The focus of this measure is to maintain required level of performance as user requirements change. Measured using automated network scripts placed on end-user workstations at agreed upon sites. The measure assumes that the NMCI workstation is LAN attached. The measurement is an aggregate and the average time by site to access NMCI hosted web site home page(s) from a NMCI workstation. It excludes the time for starting up the user's desktop web browser.

Who: Contractor	**Frequency:** Aggregated hourly, summarized daily, reported monthly.
Where: End User Workstation	**How Measured:** Run script three times daily (approx 0900, 1500, 2100 local time, M-F) for one hour each, with measurements taken every 5 minutes and averaged during the hour.

SLA Target	LOS (1)	<= 15 seconds
	LOS (2)	<= 10 seconds
	LOS (3)	<= 5 seconds

SERVICE NAME: NIPRNET ACCESS	SLA: 211

Service Description: A point of entry for the voice, video or data device (as appropriate) used by the end user into the NIPRNET.

Applicable Service Delivery Points: Fixed and Portable (Basic, High End, Mission Critical) Workstation, Embarkable Workstation, Embarkable Portable (Government and Contractor provided), Hybrid Seat, Voice seat, and seats with classified option.

Performance Measure: NIPRNET Access Availability	Increment 1 SLAPC: 211.1

Performance Measure Description: Availability of connectivity to NIPRNET portal. Measured from the NIPRNET gateway to the transport boundary at the NOC and includes all intervening infrastructure. Excludes any outages beyond the control of NMCI. These availability values are the aggregate and average availability of the NIPRNET for the NMCI Enterprise.

Who: Vendor	**Frequency:** Measured continuously, summarized daily, reported monthly. Daily operational reports will be provided to appropriate Government agencies to support network situational awareness.
Where: Access Point of Entry for NIPRNET	**How Measured:** Measurements of the NIPRNET gateway at the NOCS, based on help desk trouble tickets reported for the NMCI Enterprise Calculation: Number of minutes of service availability divided by the total number of minutes in a day.

	LOS (1)	0.998
SLA Target	LOS (2)	0.998
	LOS (3)	0.998

Performance Measure: NIPRNET Access Latency/Packet Loss	Increment 1 SLAPC: 211.2

Performance Measure Description: Latency and packet loss from the NMCI base demarcation point (WAN Transport Service Delivery Point (SDP)) across the WAN to and through the NOC to the NIPRNET access point (the last point controlled by the NMCI Contractor). Intent is to ensure that the connectivity to the NIPRNET supports satisfactory performance. The latency measurement is an aggregate and average by site of packet latency across the Contractor provided data transport. Attempted measurements include measurement across the switching, routing, and security mechanisms. Excludes sites that exceed the possible latency value based on distance from the NIPRNET portal in one hop at the speed of light.

Who: Vendor	**Frequency:** Measured every 5 minutes, summarized hourly, reported monthly.
Where: Base demarcation point and NIPRNET access devise at the NOC	**How Measured:** Latency and Packet Loss -acceptable measurement protocol, measured round-trip from NMCI demarcation point to NIPRNET access point at the NOC. Packet Loss determined as part of measured returns.

	LOS (1)	<= 30 ms / <1.0%
SLA Target	LOS (2)	<= 30 ms / <1.0%
	LOS (3)	<= 30 ms / <1.0%

SERVICE NAME: BAN/LAN COMMUNICATIONS SERVICES	SLA: 225

Service Description: Vendor provided service to interconnect geographically co-located Navy and Marine Corps LANs and BAN attached devices. The BAN service must address the specific mission requirements of each site, with regard to security, functionality, classification, performance, interoperability, and network management. The LAN service must address the specific mission requirements of the user organization, with regard to security, functionality, classification, performance, interoperability, and network management.

Applicable Service Delivery Points: For BANs, NMCI Infrastructure, Organizations, NMCI OP Center, Pier side SDP, Fleet Teleports, Non-DON organizations; For LANs, Data/Voice/Video Seats, Organization.

Performance Measure: BAN/LAN Communication Services Availability	Increment 1 SLAPC: 225.1

Performance Measure Description: Availability of connectivity between Navy and Marine Corps LANs, BANs and attached devices. The BAN measurement will be an aggregate and average by site of BAN outage time. End-to-end BAN availability is calculated as the percentage of time that the BAN network is capable of accepting and delivering NMCI application data to the total time in the measurement period. It is measured end-to-end, from BAN demarcation to the LAN point of presence. The LAN measurement will be an aggregate and average by site of all LAN end points (server) and LAN outage time. The calculation for end-to-end BAN availability for a given month is as follows: (24 hours X days in month X # of BAN end points – Sum of the BAN end point outage times) / 24 hours X days in month X # of BAN end points. The calculation for LAN availability is same. Computation excludes scheduled, pre-agreed outages.

Who: Vendor	Frequency: Continuous monitoring, 24 hour averaging, w/ reports monthly.
Where: BAN/LAN Service Delivery Points	How Measured: Random sampling can be performed on number of BAN/LAN end points and time periods as specified by the Government. The BAN end devices are the inner, core and distribution switches, the LAN end devices are access switches. Aggregate performance of BANs; random sampling of LANs, the latter to include all Mission Critical networks. The BAN number appears first, the LAN number second.

SLA Target	LOS (1)	.999 / .999
	LOS (2)	.999 / .999
	LOS (3)	.9999 / .9999

Performance Measure: BAN/LAN Communication Services Latency	Increment 1 SLAPC: 225.2

Performance Measure Description: Packet latency across the BAN/LAN. Calculated across BAN/LAN demarcation points. The measurement will be an aggregate and average by site of all packet latencies across the BANs/LANs within NMCI. An acceptable management protocol(s) will be used to perform the measurement from the NOC.

Who: Vendor	Frequency: Measured every 5 minutes, summarized hourly, reported monthly.
Where: SDP	How Measured: Acceptable measurement protocol measured round trip time to multiple sites throughout the day.

SLA Target	**LOS (1)**	10 ms
	LOS (2)	10 ms
	LOS (3)	10 ms

SERVICE NAME: PROXY AND CACHING SERVICE	SLA: 226A

Service Description: Vendor service providing users the capability for caching and proxy to enhance Internet access and performance. Measures success in enhancing access to both external and internal web content.

Applicable Service Delivery Points: Each DON facility

Performance Measure: Proxy and Caching Service Availability	Increment 1 SLAPC: 226A.1

Performance Measure Description: Proxy server availability is defined as the portion of time that Contractor-provided proxy servers is available or 'up' for customer access. Availability is measured in terms of percentage of available time in a month. Formula is: (# of hours in Month - proxy server outage time in hours) / number of hours in Month. The outage time includes all unscheduled proxy server outages.

Who: Contractor	**Frequency:** Measured daily and reported monthly.	
Where: NMCI Internet Proxy Servers	**How Measured:** Monitors Proxy server and report % availability by individual server. Data audited by Government or designated third party.	
SLA Target	**LOS (1)**	0.995
	LOS (2)	0.995
	LOS (3)	0.997

SERVICE NAME: SYSTEM SERVICES – DOMAIN NAME SERVER	SLA: 231

Service Description: DNS is the service that translates domain names to IP addresses and vice versa. A domain name is a mechanism that gives unique names to network devices. Vendor solution must meet all functionality of the current DNS service, to include flexible support for deployed units. This service includes Internal Primary and Secondary DNS Servers, and External Primary and Secondary DNS Servers.

Applicable Service Delivery Points: NMCI Infrastructure, Organizations, NMCI OP Center, and Fleet Teleports.

Performance Measure: DNS Availability	Increment 1 SLAPC: 231.1

Performance Measure Description: DNS Service Availability measured as an aggregate and the average for Primary and Secondary DNS Service Availability reported monthly. The higher mission critical metric represents a higher break fix requirement and more responsive time to repair.

Who: Vendor	**Frequency:** Primary DNS - every 2-5 minutes. Secondary DNS - every 10-15 minutes.	
Where: All DNS Servers	**How Measured:** Continuous monitoring of DNS Servers by DNS Monitors and SNMP database	
SLA Target	LOS (1)	>= .997
	LOS (2)	>= .997
	LOS (3)	>= .998

Performance Measure: DNS Latency	Increment 1 SLAPC: 231.2

Performance Measure Description: The measurement is a monthly aggregate and average by site of Address Resolution Time and reflects the time for NMCI end users to use their local DNS servers. Address Resolution Time includes applications only, and does not include network response time. Address Resolution Time for names/addresses that are not resident on the DNS Servers are not considered failures. Measured using automated network scripts placed on end-user workstations at agreed upon sites.

Who: Vendor	**Frequency:** Summarized daily, reported monthly.	
Where: All DNS Servers	**How Measured:** Run script three times daily (approx 0900, 1500, 2100 local time, M-F) for one hour each with measurements taken every 5 minutes during the hour.	
SLA Target	LOS (1)	< 100 ms
	LOS (2)	< 10 ms
	LOS (3)	< 10 ms